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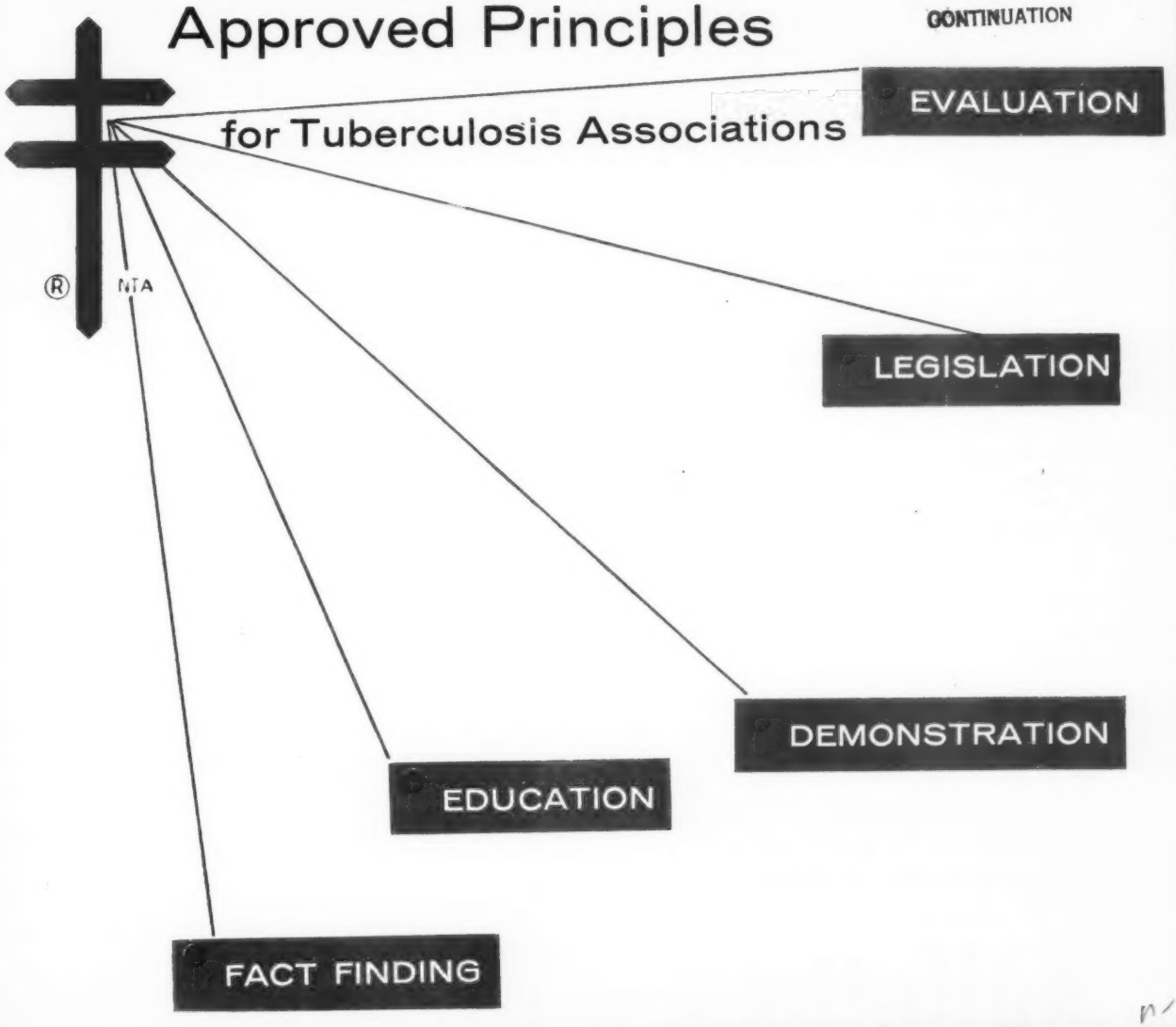
NATIONAL TUBERCULOSIS ASSOCIATION

OCTOBER 1957

Technology

CONTINUATION

Approved Principles for Tuberculosis Associations



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EDITORIAL

Asian Influenza

by James E. Perkins, M.D.
Managing Director, National Tuberculosis Association

In this issue of the BULLETIN are two very significant articles by Dr. Blomquist, of the U.S. Public Health Service, and Miss Boyd, of the National Tuberculosis Association staff, pertaining to the important components of the tuberculosis control program and corresponding functions of official and voluntary agencies involved in the control of tuberculosis. These thought-provoking articles are particularly appropriate at this time, when, with the rapid changes occurring in the tuberculosis picture, serious consideration is being given by all individuals interested in the control of tuberculosis to keeping functions of both the official and voluntary agencies in tune with the times.

I had planned to devote this editorial to these two articles, but in view of the importance of the threatened epidemic of Asian influenza and its relationship to the program of the NTA and its affiliated associations, I have decided to devote the remainder of my space to this problem. Further information about the disease appears on page 137.

Several members of the NTA staff have participated in several conferences on Asian influenza called by the U.S. Public Health Service in Washington. In these conferences it was reported that increases in tuberculosis were noted in Hong Kong and the Philippines concomitant with their respective epidemics of Asian influenza. (The increase in tuberculosis in connection with the 1918 epidemic of influenza is well-known, of course.) At the last of these PHS conferences in Washington, which was held in collaboration with the Association of State and Territorial Health Officers on August 27 and 28, recommendations approved by that association included one to the effect that tuberculosis patients should be given priority in receiving the new Asian influenza vaccine, and also that at the appropriate time each health officer might wish to bring his tuberculosis association into the local campaign in view of its resources for health education of the public and the availability of services of volunteers. At that conference it was brought out that the Influenza Committee of the American Hospital Association has also recommended vaccination of hospitalized tuberculosis patients.

Thus, tuberculosis associations find themselves concerned with the Asian influenza problem even strictly from the standpoint of tuberculosis.

The medical section of the NTA, the American Trudeau Society, has stressed for some years the importance of concerning ourselves with pulmonary diseases other than tuberculosis, and more recently with all respiratory diseases. There has been some skepticism on the part of state and local tuberculosis association executives as to whether or not other respiratory diseases, important though they may be from the standpoint of differential diagnosis to the clinician, form a basis for community programs by tuberculosis associations. This current emergency not only forcefully brings home the validity of the ATS's attitude, but gives a specific opportunity to tuberculosis associations to engage in a concrete community program in the field of other respiratory diseases. Tuberculosis associations not only are skilled in effective health education of the public and mobilization of the services of volunteers, but from long experience are accustomed to supplementing the services of the official health agency and cooperating with medical societies and other community groups in planning and conducting programs to meet local public health problems.

Community planning to combat an anticipated Asian influenza epidemic falls into three parts:

1. Immunization of as large (*Continued on page* 143)

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NATIONAL TUBERCULOSIS ASSOCIATION

VOL. 43 NO. 9

Published monthly except August at 404 North Wesley Ave., Mount Morris, Ill., by the National Tuberculosis Association for persons interested in public health and administrative aspects of tuberculosis control, and made possible through the annual sale of Christmas Seals. The editors welcome articles for possible publication. If any article deals with a subject on which there may be differences of opinion, the BULLETIN will be glad to consider presentation of varying opinions in the same or subsequent issues. Editorial Office: 1790 Broadway, New York 19, N.Y.

ELLEN LOVELL, Editor; GRACE JACKSON, Managing Editor

Second class mail privileges authorized at Mount Morris, Illinois.

The Attack on TB—1958

for the Public Health Service

Research, Service, Detection, and Control

Are the Cornerstones of the Government's TB Program

by Edward T. Blomquist M.D.

Dr. Blomquist is chief, Tuberculosis Program, U.S. Public Health Service. A native of Illinois, Dr. Blomquist received his medical degree from the University of Chicago and a public health degree from the University of Michigan. He was appointed medical officer in charge of the Arctic Health Research Center, Anchorage, Alaska, in 1951. Upon completion of this tour of duty in 1954, Dr. Blomquist returned to Washington to take up his present position, in which he directs federal tuberculosis control and research activities and coordinates them with activities of other agencies. His article is sponsored by the Governing Council of the National Conference of Tuberculosis Workers.

The control of tuberculosis by public and voluntary health agencies does not differ now in essential nature from the task of twenty years ago. It has changed and shifted. Today, the tuberculosis challenge presents more subtle features. The weapons in our arsenal of attack have improved in quality and increased in number. Our methods are fundamentally the same, but they must be adapted to changed conditions. As the problem becomes more inscrutable and the disease itself more enigmatic, we should step up our speed of action, seek new knowledge, develop new techniques, provide unusual services, and double the intensity of all public health control efforts.

Research, service, detection, and control—these are our spheres of action, the fronts upon which we should bring to bear our most thoughtful and vigorous strategy.

Research

Since the beginning days of organized tuberculosis control activities, research scientists, biostatisticians, and epidemiologists have pioneered in field studies and cooperative clinical investigations and have contributed markedly to our store of knowledge. Studies of fungus infections of the lung, drug therapy evaluations, controlled investigations of immunological problems, analyses of tuberculin sensitivity phenomena, and now cooperative trials of isoniazid as a prophylactic are fields in which research teamwork has excelled.

In the Public Health Service, the prevention of breakdown of previous infections has become the foremost goal of tuberculosis control activities. For fiscal year 1957, Congress appropriated additional funds for research into the possible effectiveness of isoniazid as a preventive of tuberculosis in human beings. Proceeding from promising results in laboratory animals, researchers in the Tuberculosis Program of the Public Health Service instituted a long-range study early in fiscal year 1957 to answer these questions: (1) Will isoniazid prevent new infections? (2) Will isoniazid prevent the breakdowns of old infections?

In still another branch of this overall investigation, it is planned to study isoniazid's effect among previously infected persons who are not in highly exposed situations. An impressive body of evidence is accumulating that much of the new clinical tuberculosis we are seeing today is occurring among previously infected persons whose subclinical infection progresses to active disease under either external stress or decreased general resistance. It seems to us most important to determine whether the threat of tuberculosis that millions of older persons infected in childhood carry with them can be removed by the prophylactic use of isoniazid.

If isoniazid is effective in any one of the areas under investigation, we shall have found a practical approach to the control, prevention, and even eradication of tuberculosis.

Service

The Tuberculosis Program of the Public Health Service will continue to assist the states through grants-in-aid and technical assistance in the attack on tuberculosis problems in the communities of our nation. This attack is carried on in three specific areas of action:

1. Prompt identification of tuberculosis.
2. Quickly applied and effective treatment.
3. Adequate nursing and social services to patients and families to solve their individual problems.

The most pressing demand for service arises from the exigencies of the unhospitalized tuberculosis patient. In 1954, the Tuberculosis Program of the Public Health Service undertook a study of a selected group of patients not in hospitals. The results disclosed that roughly half of the significant caseload was outside hospitals. After applying only the most minimal standards for medical care, it became inescapably obvious that a startling proportion of cases were not receiving adequate care and supervision. The study demonstrated that for the country as a whole we had not yet developed a workable system around which we could effectively put to use our limited resources. There were few and inadequate clinic facilities for medical guidance and follow-up. There was little systematized effort in many places even to supervise infectious cases. A large proportion of unhospitalized patients—almost half in rural areas—had no clinic, public health, or social services available.

Subsequent studies in state and local communities show that no significant changes or improvements in this state of affairs have occurred. Therefore, there is immediate need, if we are to solve our remaining tuberculosis problem, to arrive at a commonly held attitude toward the provision of care for unhospitalized tuberculous persons. Indeed, it should be strongly emphasized that there is no more pressing need today in the whole field of tuberculosis

control, prevention, and treatment.

The health officer is intimately involved in this problem. He is naturally concerned with the arrest and care of disease in the individual, but his first concern is to prevent the further spread of infection once it is detected. Therefore, it seems to be no more than hard common sense that, as a policy, all active, infectious cases of tuberculosis be hospitalized until sputum is negative and until lesions are stable or are seen on X-ray to be improving. However, those patients who cannot or will not remain in the hospital until such an ideal condition is reached should never be deprived of the benefits of modern treatment. Sound public health practice demands that every attempt be made to render all cases noninfectious wherever they may be.

It is probable that we shall never again look upon the hospital, the health department, social and other related services, as separate and distinct entities working in a loosely defined pattern of cooperation. The time has come to regroup our forces and to aim at unification, at a soundly planned pattern of coordinated effort. Unhospitalized active tuberculosis patients are here to stay. And it is realistically to be expected that the relative number of them will increase and that the state of affairs they cause will not only continue but will grow in magnitude.

The care and supervision of these unhospitalized patients must be a formally coordinated activity of all involved agencies and groups, to insure continuity of service and effective patient management. State and local health departments should assume the responsibility for that coordination.

It should be the responsibility of the coordinator to see to it that indicated public health services, including drugs, are made available to all patients as needed.

Detection

The Tuberculosis Program will continue to stimulate the "selective" application of X-ray survey activities in the states and local communities. Action will be particularly applied in areas where the tuberculosis problem is severe: among contacts of known cases, hospital admissions, occupational groups at special hazard, chronic alcoholics, patients and employees in mental hospitals, prison inmates, low economic groups (particularly those in slum areas), migrant laborers, and others.

The "selective" utilization of X-ray survey, however, does not imply only the choice of population groups and geographical areas to be surveyed. Selection of areas of case-finding activity will also be determined by the quantity and quality of follow-up, diagnostic and treatment facilities, cost, availability of personnel, and the community's potentiality for making maximum use of survey findings.

In consequence, the Public Health Service proposes that every community evaluate on a continuing basis its tuberculosis problem, its needs, and its resources, so that X-ray surveys may have maximum effect in terms of number of cases found, the reduction of the reservoir of unknown infectious cases, and through adequate and enduring follow-up activities, the breaking of chains of infection.

In low-prevalence groups, tuberculin skin testing is useful as a first step in case finding. X-ray activities could thus be restricted to reactors to tuberculin. As a result, the necessity of screening the whole population by X-ray would be obviated.

In addition, X-ray survey activities should be planned and evaluated in terms of radiation exposure. Current findings in this field emphasize the need to eliminate all unnecessary and avoidable X-radiation. It will be necessary to study this problem with the closest scrutiny to arrive at uniform standards and a code of acceptable practice. Specifically, such a study would have as a portion of its goal the frequency of X-ray examinations of the chest, the age of young adults who are urged to respond to survey appeals, and the application of protective devices to X-ray equipment, such as cones and filters.

Control

The control of tuberculosis ideally is not a technique in itself but the result of all properly applied public health methods. The tuberculosis control officer best exercises his function in the attack on tuberculosis as an alert strategist who, through decisive manipulations of method and realistic adaptations of research, service, and detection, keeps constantly abreast of the problems, needs, and challenges of his field. On the federal level, he assists states and local communities through grants of funds, through consultation that leads to new understanding, through constant and persistent measurement and evaluation of all public health, social, economic, and medical factors that influence the ever-changing aspects of tuberculosis.

To achieve his ultimate goal, the tuberculosis control worker, whether a government official or an executive secretary of a tuberculosis association, must be a leader of a devoted and dedicated team. When all is said and done, the control of tuberculosis is a cooperative enterprise which brings all manner of talent, skill, training, and insight to bear on the aggressions of tuberculosis.

Voluntary organizations have functions peculiar to them that official agencies cannot perform. Similarly, official agencies have unique functions and delegations of authority, public funds, and other governmental resources upon which voluntary agencies cannot draw.

The two groups have a duality of function and a unity of purpose. It is only through their concerted planning, cooperative action, pooled knowledge, and complementary services that the control of tuberculosis can be achieved.

Mr. Henson to Head Wyoming Association

Ramon Henson has been appointed executive secretary of the Wyoming Tuberculosis Association, to replace Forrest J. Gerard, who resigned to become tribal relations officer for the Division of Indian Health, U.S. Public Health Service.

Mr. Henson was area secretary for the Illinois Tuberculosis Association in 1951-52; executive secretary of the Vermilion County (Ill.) Tuberculosis Association in 1952-55; and executive secretary of the Allen County (Ohio) Tuberculosis Association in 1955-56. He holds a B.A. from Oklahoma A & M and an M.A. from Wayne University, Mich.

The Attack on TB—1958

for tuberculosis associations

by Clarissa E. Boyd
Director, Program Development Division
National Tuberculosis Association

Her article is sponsored by the Governing Council of the National Conference of Tuberculosis Workers.

"Approved Principles," Plus the Imagination and Initiative of Those Who Apply Them, Are the Foundations of Successful Program

Voluntary organizations have functions peculiar to them that official agencies cannot perform.

—Edward T. Blomquist, M.D.
(preceding article)

Indeed they do! And it is these unique functions that can make the tuberculosis association a real power in any community, provided:

It has a realization of its unique functions and puts them to work.

It has an awareness of its many assets and uses them to overcome liabilities.

It has an understanding of its many responsibilities and has the courage to pursue them.

How do these functions peculiar to the voluntary tuberculosis association tie in with the functions assigned by law to the official health agencies? With a "duality of function and a unity of purpose," how can the tuberculosis association play its part in "concerted planning, cooperative action, pooled knowledge, and complementary services" to achieve the control of tuberculosis as described by Dr. Blomquist?

People in Action

The most unique function, the most effective tool, of the tuberculosis association is people—an enlightened people working together to obtain concerted community action. The skill with which the tuberculosis association uses the process of education to gain the interest in and understanding of tuberculosis control and related health and welfare problems among its citizens and selected groups of leaders will determine the effectiveness of their action.

The association's programs may be aimed in many different directions and at different groups of people, depending upon the problems to be solved. When the vote of the people is needed to make possible the creation of a health department, the tuberculosis association may play an active role in reaching the voters to help gain their interest and action. When finances are needed for clinic services, for public health nursing services, for counseling and social services to tuberculosis patients and their families, the tuberculosis association may direct its efforts toward smaller selected groups—the legislators, county boards of supervisors, and other appropriating bodies—as well as keeping the citizens abreast of community needs.

The Broad Picture

The function of the tuberculosis association, then, encompasses education of the individual and the community to the end that tuberculosis be prevented and adequate provisions be made for services and facilities for the diagnosis, treatment, and rehabilitation of the tuberculous. The association may promote, stimulate, experiment, demonstrate, and study the various services needed and at times support and carry on services when no other official or voluntary agency is in a position to do so. The association may aid and assist official health and welfare agencies to obtain the monies needed for personnel, equipment, and services in the community. At times the tuberculosis association may have as its function the needling of an official agency which is failing to do its job.

The official health agency, on the other hand, has the delegation of authority, the public funds, and the resources to provide the major services needed to detect the disease, to treat the patient, and to meet the needs of the family.

"Approved Principles for Programs of Voluntary Tuberculosis Associations" points out that "a tuberculosis association has a responsibility for the sound development of all parts of the community's tuberculosis control program in cooperation with official and voluntary agencies." Here again is the unique function of the association to concern itself with all phases of the control program, often not directly but in some instances as "watchdog." The association with a full knowledge of its total community program is in a good position to single out those areas needing improvement at any given time and to concentrate its efforts in such directions. It can readily be seen that in conducting this kind of refinement of program based upon a study of the facts in its own area, each association must be its own "tailor" in fashioning an up-to-date program to meet its own measurements.

Approved Principles

Despite these warnings of the need for flexibility, originality, initiative, and custom tailoring, there are some common denominators—we call them Approved Principles—which serve as a guide to all associations in fashioning sound, effective programs. Any tuberculosis association must first plan its program to help meet the need in its community to achieve the control of tuberculosis. It may also finance a program in the field of other respiratory diseases—be it the current threat of Asian influenza, control of the common cold, or measures to control air pollution. All associations should be concerned with the development of official health department services and good school health programs, for these measures are essential to our major aim of tuberculosis control. The association may carry

on and support programs of generalized health education and those that will improve the general health of the community.

In carrying out any and all of these authorized programs, the five Approved Principles must be applied. They are:

Investigation and analysis of the facts.

What is the extent of each problem in the association's area?

What services and facilities already exist? Are they adequate?

What other agencies or groups are involved?

What attitudes exist?

Education of the individual and the community in the significance of the facts for needed action.

What mass media can be used to tell the association's story?

What group contacts, meetings, conferences, workshops, can be held?

What individual contacts can be made by board members, volunteers, staff?

Demonstration or support of activities to prove their value or to provide solutions where services do not exist or other funds to support them are not available.

Can the value of some needed service be demonstrated to an official health or welfare agency by the association?

What joint plans are made for turning over the demonstration to the desirable agency?

What educational programs are carried on to illustrate the value of such programs?

What services are essential but cannot be carried on or financed by any other agency at the time? Can the association afford to provide the service? Permanently? For how long?

Encouragement and support of legislative proposals and appropriations to make permanent those services necessary to the community's tuberculosis and related health needs.

What health legislation is needed?

How can the association stimulate and promote such legislation?

What materials can be prepared to get the action needed?

What contacts can be made by the association?

Study and review to determine the effectiveness of and the need for each activity.

Is each program activity meeting a current need?

Is the activity getting productive results? Should it be dropped? Or changed?

Is the activity one which might be taken over by another agency? Now? In the future?

What steps can be taken to redirect programs to meet more of the present-day problems?

A Check List

Keeping in mind the need for individual determination of priorities and program emphasis, a tuberculosis association might like to check its program against a few of the major fields of emphasis in tuberculosis control today. Each association, its board, committees, and staff, will determine which activities need major emphasis in its community.

Research. Funds may be pooled so that needed medical or social research studies, to benefit all, can be conducted by large locals, state associations, and the NTA. Final eradication of tuberculosis will depend upon the results of continued and expanded research activities.

More Selective Case Finding. More selective use of mass X-ray, with concentration among groups of high prevalence; use of the tuberculin test, especially among low - prevalence groups; and adequate safeguards from unnecessary radiation are advocated.

Adequate Treatment and Supervision for All Persons with Tuberculosis. Facilities and services for care in hospitals and at home, provision of drugs for all patients needing them, personnel to supervise and serve patients in hospitals and at home, and rehabilitation, including counseling and social services to meet the needs of patients of all ages, are needed in most communities.

Professional Education. Medical education is needed to keep physicians abreast of current treatment techniques, including the proper use of drugs, and the importance of hospitalization, nursing, welfare, rehabilitation. Social workers need current scientific knowledge on the modern care of the tuberculous. Continuous in-service courses for tuberculosis association staff workers in tuberculosis control and public health methods are also significant.

People—many people—some serving on boards of directors and committees, some as volunteers on association activities, some as interested taxpayers and citizens, some as professional leaders and staff workers, all are needed to fulfill the functions of the tuberculosis association. These people must be endowed with:

Curiosity—to find answers to the many unanswered questions needed to control tuberculosis.

Courage—to make changes, to move ahead even in the face of opposition or apathy, to discard outmoded activities and take on new and more difficult ones.

Conviction—to get the job done without wavering.

The tuberculosis association's program, lacking the precision of manufacturing, and the direct person-to-person relationship of medical practice, will always be a composite of the tangible and intangible, the simple and the complex, the definitive and indefinable. Yet, with a spirit of teamwork and a generous degree of flexibility and vision, we the people who represent the tuberculosis association can play a dynamic role in controlling tuberculosis and in making each and every community in the USA a healthier and happier place in which to live.

Hospital Admissions Increase

The ratio of hospital admissions to population in the United States outstepped the total population increase in the 11-year period 1946-1956, according to *Hospitals,* journal of the American Hospital Association. Admissions to hospitals of all types in 1956 were 22,089,719, or 132 per 1,000 population. In 1946 the rate was 112 per 1,000.

Needed: a Sharper Tool

by Donald A. Trauger
Director, Social Research Division
National Tuberculosis Association.

Mr. Trauger's article is a contribution from the Committee on Medical and Public Relations of the American Trudeau Society.

At the Present Time, the Tuberculin Test Is Our Most Effective Tool in Discovering Infection. But We Are Not Yet Making the Most of It

For many years to come, three quarters of the new active cases of tuberculosis will develop from persons now infected, according to our best estimates. To find these infected people—the people who may have active disease tomorrow—we have no better tool than the tuberculin test. But the tool needs sharpening. We need careful follow-up studies to discover the relative risks of active disease among reactors and nonreactors, and among reactors on the basis of the size of their reaction and other factors. Such studies will open up an entirely new approach to tuberculosis control. Case finding can then be directed at the infected persons who are most likely to develop active tuberculosis.

Indiscriminate Testing

Before the tuberculin test achieves full stature in tuberculosis control, it may be necessary to clear away some of the muddle which has resulted from indiscriminate testing. A survey of the situation in 1952 revealed that tuberculin testing programs were taking place in hundreds of localities. With few exceptions, these programs consisted of testing school children; in some areas, such programs have been carried on for as long as 30 years. In most cases, it was impossible to get precise information about the type and strength of test, about the time of reading and criteria for reactors. There were almost no analyses of the results.

It is difficult in many cases to determine the objectives of these programs. Were they done primarily for case finding, education, or research? One suspects that in some cases the objectives have been lost from view. In many places, tuberculin testing programs preceded X-rays as screening programs. At this point in history, it seems unfortunate that more long-term follow-up studies were not initiated twenty years ago and that more attention was not paid to precision and standardization in administering the test, in observing reactions, and in determining the long-range relation between infection and disease. Laments about spilled milk are, of course, useless, but it seems inexcusable to continue testing children in situations which do not permit evaluation of results, or which do not use a reaction in a child as a basis for beginning a search for the source of infection.

Because tuberculin testing was so thoroughly associated with school children, and X-rays with adults, the conclusion was sometimes drawn that tuberculin testing was no good for case finding. The elemental observation that there are no cases found except among reactors was overlooked.

A Standardized Test

Another bewildering muddle arose from the variety of tuberculin tests possible, the variety of tuberculins and dosages available, and the variety of opinions about how to determine the significance of a reaction. There is some reason to hope that there will soon be virtually complete agreement on the best test and that others will be discarded. The current standard intradermal test is described in detail in the 1957 revised chapter on tuberculin testing in NTA's *Diagnostic Standards and Classification of Tuberculosis.*

The convenience of the patch test and the conviction of many sincere physicians that the patch test is good enough have unfortunately given sanction to its widespread use, despite definite evidence in controlled tests that the patch is unreliable. In 1945, the New York State Health Department compared concurrent patch and intracutaneous tests and found that 10 to 30 per cent of reactors to the Mantoux test were negative on the patch test.

A study published in 1957 shows that more than half of reactors to the intracutaneous test were negative on the patch test; in another study, only 4 per cent of children who reacted to the patch test also reacted to the Mantoux test.

Work is going forward in the search for a test that combines the convenience of the patch and the accuracy of the intradermal test. Actually, the convenience of the patch mainly accrues to the one giving the test and not to the person being tested. From the standpoint of the person tested, the convenience of the patch is no longer apparent after the patch has been applied. For 48 hours it is conspicuous and in the way, and since it must be kept dry, bathing is difficult.

Other persistent beliefs which have all the vigor of well-established folklore are that people will not accept "the needle," that adults will not be tuberculin-tested, and that there are difficulties in having the tests read at the proper time. The experiences in several county-wide tuberculin testing programs, where the participation at all age levels was as good or better than that in most X-ray surveys, belie these objections.

Radiation Hazards

Recent re-evaluation of the hazards of radiation gives new importance to the tuberculin test. It may become as imperative in the future to provide good tuberculin testing facilities as it has been to provide convenient X-rays in the past. It would, however, be a mistake to conclude that the X-ray can be eliminated, because any diagnosis of pulmonary tuberculosis must include both demonstrations of infection and evidence of a disease process in the lung. The latter may be impossible to establish without X-ray.

It should be made plain that nonreactors do not need an X-ray as far as tuberculosis control is concerned. The tuberculin test is the only way to

determine whether a person is infected when laboratory findings are negative. Knowledge of infection status is essential for a wise decision about an X-ray examination for each individual.

Some thought and some courage on the part of tuberculosis associations will be needed to place the tuberculin test in its appropriate spot for tuberculosis control. Where programs using community-wide X-rays must be revised, there will be a temptation to swing to the tuberculin test as a substitute and to use it indiscriminately, disregarding the nature and the location of the tuberculosis problem, as the X-ray was sometimes used.

A tuberculosis control program which rests heavily on tuberculin testing can have the educational value of beginning at the beginning. Early detection begins with finding the infection before it progresses to disease. The trouble is that we do not yet have specific advice to give infected persons. We can tell them to be on guard for symptoms, such as colds that seem to go on and on, or chronic fatigue, and we can suggest a periodic X-ray. That is all that can be done at present, despite the opinion of some enthusiasts that the drug treatment of infected people will prevent disease. Their optimism may be justified, but careful field evaluations have yet to be made.

Dealing With the Noninfected

What can we tell noninfected people? Only that they should have a tuberculin test from time to time to see that they are still noninfected. How often should they be retested? If data were available on case rates among reactors by age, size of reaction, and recency of conversion, the answer would not have to be arbitrary. It would be possible to base it on the probability of infection and cases among various groups. At present, one can only suggest a yearly tuberculin test during the first few years of life and during the years of adolescence and young adult life, especially in areas where high death and case rates suggest high infection rates. A better answer can be given in communities that have kept and analyzed records which tell them their own situation.

In the absence of definite data, some rough conjecture will be required about whom to test. For example, the infection rate is lower in school children than among adults. A closer look at available data suggests that within a group of school children who are infected, there are high and low risks of disease as a consequence of the infection. More specifically, among children with positive tuberculin tests 5 to 14 years old, about 1.5 cases of tuberculosis develop per year per 1,000. After the age of 15, the rate rises sharply to a peak of about 2.7 at age 25—a higher rate than at any later age. In other words, one cannot expect to find many infections in children even of high school age these days, but when infection is found it warrants serious attention. The likelihood that an infected individual will develop active tuberculosis appears to vary with sex as well as age, but it is not clear at present whether the sex differences are great enough to require different tuberculosis control practices for males and females. Infection rates, and case rates among reactors, may be higher among persons with diabetes, silicosis, or other conditions. Once the groups among reactors who have more risk of developing disease are well defined, the search for cases can be narrowed still more.

Setting Up a Program

What is required for a tuberculin testing program? First of all, it should be regarded as a part of a good case-finding program and not a substitute for it. Active cases should first be sought among groups with the highest proportion of cases, such as persons with presumed inactive tuberculosis; contacts and associates of active cases; persons in jails, hospitals, doctors' offices; and suspects detected in routine examinations or in surveys. Tuberculin testing may then be done among the remaining population, and intensive case-finding efforts should be made among the reactors and their associates.

If a survey type of approach is contemplated, ways to organize and conduct a survey can be found in a forthcoming manual on tuberculin testing to be published within the coming year by the NTA. In general, community organization for tuberculin surveys is not different from that for X-ray surveys. This manual contains standard record and report forms, which show how to evaluate results of tuberculin testing and follow-up activities. *Diagnostic Standards* and an illustrated pamphlet prepared by the NTA show the doctor how to give the test and how to interpret it.

The materials and plans described do not eliminate the need for much work and a great deal of concern and thought about who is to be tested and why, and what is to happen after the tests have been made. These matters must be dealt with in the locality where the testing is done.

The ultimate value of tuberculin testing in screening programs will depend upon careful testing, excellent records, conscientious follow-up of contacts and their associates, and determination of the cost of finding each new active tuberculosis case. It seems clear, however, that barring some new diagnostic test which is more convenient and has better prognostic value, the tuberculin test will become an increasingly important weapon in the battle against tuberculosis.

New Bibliography for Patient Reading

As a result of a letter written by a TB patient to the National Tuberculosis Association, the Health Education Division has compiled an up-to-date list of recommended books, booklets, and pamphlets for patient reading.

The letter said in part: "I am a patient at ——— Hospital. . . . For the past five months I've been trying to get some up-to-date literature on this disease. Of course the doctors are very cooperative but also very busy and haven't time to answer all our questions. The only books on TB [in our library] are at least 12 years old. . . . I expect to be discharged in two months, so I'm trying to learn everything I can about TB so I can protect myself in the future. . . . I am writing to ask if you have any literature on the new methods of treatment and the new medications. . . ."

A copy of the NTA's bibliography can be obtained from all local tuberculosis associations.

Asian Influenza

TB associations are joining forces with the PHS to combat the expected epidemic

Throughout the country, tuberculosis associations are rallying to meet the expected epidemic of Asian influenza this fall and winter. Because influenza is a respiratory disease and because of its adverse effect on tuberculosis, the National Tuberculosis Association immediately volunteered its help to the Public Health Service last June when the first cases hit this country.

Caused by a new strain of Type A virus, Asian flu was epidemic last spring and summer in the Philippines, Japan, India, China, and Taiwan, and has now appeared in every continent. It is now widely seeded throughout this country, but apparently is temporarily held in check from assuming explosive proportions by the season of the year.

The disease develops quickly—24 to 72 hours—after exposure. The onset is abrupt, with fever (often high), cough and other respiratory symptoms, and aching joints and muscles. The acute illness usually last two to five days in the uncomplicated case and is usually followed by a period of weakness and lassitude.

The prevalence in other countries which have had epidemics has varied from 10 to 100 per cent of the population. The average length of a local epidemic is about four weeks, but 80 per cent of those who become ill do so within about two weeks.

This is what makes even the relatively mild type so serious: essential services may be almost paralyzed for two weeks and entire families may be without care.

However, for the first time in history, a vaccine has been produced in a country before that particular strain of virus struck. Every effort is therefore being made to take advantage of this singular asset.

After a joint conference in August with representatives of the NTA and other leading voluntary health agencies, the PHS recommended that local communities immediately plan for a vaccination program, either through a local health council or, in its absence, through a specially formed planning committee. The Association of State and Territorial Health Officers has recommended priority vaccination schedules for those individuals whose services are necessary to maintain the health of the community and other basic community services, persons with tuberculosis, and others who the physician believes constitute a special medical risk.

Manufacturers licensed by the PHS to produce vaccine have been operating seven days a week and now hope to have 85 million cc. (doses) available by January 1.

Even if this epidemic does not prove as serious as feared, this mobilization can be of great value, according to NTA managing director Dr. James E. Perkins, as a "dress rehearsal" or "dry run" for a more serious epidemic in the future or some other national emergency.

Home Away from Home

TO teach housewives and mothers easier ways of doing their everyday tasks, a complete homemaking center has been built at the Waverly Hills Tuberculosis Sanatorium, in Kentucky. A joint project of the Kentucky Bureau of Rehabilitation Services and the Louisville Tuberculosis Association, the center is financed by a $4,000 grant from the Department of Health, Education, and Welfare and $2,000 from the Louisville association for a six-month demonstration. The center contains a living room, kitchen, dining area, and laundry, where patients—men as well as women—are taught about food selection and preparation, marketing, dressmaking, upholstering, etc. Here, two patients take part in a food-preparation class.

VA Hospitals Launch Sarcoidosis Study

Five Veterans Administration hospitals, in Atlanta, Dallas, Madison, New York City, and Washington, D.C., have launched the first cooperative research attack on sarcoidosis, a mysterious tuberculosislike disease. Under the direction of the VA's central office, a doctor at each hospital will study patients with sarcoidosis, not only clinically but from the standpoint of environment, occupation, eating habits, and self-medication, which may help reveal the cause of the disease.

Occurring most frequently in persons between 20 and 40, sarcoidosis produces symptoms often confused with tuberculosis, fungus diseases, and cancer. The growths characteristic of the disease usually occur in the lungs but can occur in any organ.

NTA Fellowships

26 young men and women to do advanced study on respiratory diseases

Twenty-six teaching and research fellowships have been awarded by the National Tuberculosis Association for the current academic year, according to an announcement made in September by Dr. Julius L. Wilson, director of medical education for the American Trudeau Society.

The fellowships have been awarded young men and women who have recently attained their doctorate or are working for an advanced degree and are interested in continuing graduate study in the field of respiratory diseases in an approved hospital or medical center. The fellowships are a part of the medical education and medical research programs of the NTA, which are supported primarily by Christmas Seal funds. Special contributions from voluntary tuberculosis associations affiliated with the NTA and from the Sachs Foundation, Colorado Springs, Colo., made possible a broadening of the fellowship program this year.

The constituent and affiliated associations which have made contributions to the fellowship program are: Maryland Tuberculosis Association; State Charities Aid Association (N.Y.); New York Tuberculosis and Health Association; New Jersey Tuberculosis League, Inc.; Washington Tuberculosis Association; Dade County (Fla.) Tuberculosis Association; Ohio Tuberculosis and Health Association; New Canaan Tuberculosis Association; Brooklyn Tuberculosis and Health Association, Inc.; and Philadelphia Tuberculosis and Health Association.

The NTA teaching fellowships have been granted the following: Edward A. Gaensler, M.D., Harvard Medical School, Boston; William Spicer, M.D., University of Maryland School of Medicine, Baltimore; Martin B. Booth, M.D., District of Columbia General Hospital, Washington, D.C.; John F. Bowen, M.D., Chest Service, Bellevue Hospital, N.Y.; George C. Bower, M.D., University of Colorado School of Medicine, Denver; Herbert P. Constantine, M.D., Strong Memorial Hospital, Rochester, N.Y.; Anne L. Davis, M.D., Bellevue Hospital, Columbia University Division, N.Y.; William J. deGroot, M.D., District of Columbia General Hospital, Washington, D.C.; Clarence J. Duke, M.D., District of Columbia General Hospital, Washington, D.C.; Merrill M. Goldstein, M.D., Boston City Hospital, Boston; Wilbur Y. Hallett, M.D., University of Washington School of Medicine, Seattle; Arthur G. Harden, M.D., New York Hospital, Cornell Medical Center, N.Y.; Asher Marks, M.D., Jackson Memorial Hospital, Miami; William P. Reagan, M.D., University of Arkansas Medical Center, Little Rock; Loren M. Rosenbach, M.D., Beth Israel Hospital, Boston; Harvey Salomon, M.D., State College of Medicine, Brooklyn; Albert L. Sheffer, M.D., Graduate Hospital, Philadelphia; Josef R. Smith, M.D., University of Mississippi School of Medicine, Jackson; James K. Young, M.D., Pennsylvania Hospital, Philadelphia; Robert F. Donohoe, M.D., District of Columbia General Hospital, Washington, D.C.

The research fellowships are: David P. Holman, M.D., University of California Medical Center, San Francisco; Ivan Kochan, Stanford University, Stanford, Calif.; James B. Littlefield, M.D., University of Virginia Hospital, Charlottesville; Michael Rohman, M.D., Van Etten Hospital, Bronx; Ruth L. Russell, University of California, Los Angeles; Calvin A. Stanfield, M.D., University of Rochester School of Medicine, Rochester, N.Y.

In addition to the fellowships granted by the NTA, the National Research Council of the National Academy of Sciences has notified Dr. Wilson that Dr. Charles B. McCall, of Birmingham, Ala., has been awarded a fellowship for research in tuberculosis. He will do research in pulmonary physiology at the University of Alabama Medical College.

Kathryne Pearce Memorial

The Kathryne Radebaugh Pearce Memorial Room was dedicated at the headquarters of the Hennepin County (Minn.) Tuberculosis Association in June. A portrait of the late Mrs. Pearce, who served the association as executive secretary from 1922 to 1954, was unveiled at the ceremony.

Saidie Dunbar Fund

The Saidie Orr Dunbar Nursing Education Fund Committee announces the establishment of a $900 scholarship for study during 1957-58 at the School of Nursing of the University of Oregon Medical School, either in the field of public nursing or in teaching and supervision. Applicants must be graduates of accredited schools of nursing and registered in Oregon.

The fund was created in 1956 by the Oregon Tuberculosis and Health Association and affiliated county associations and the Oregon Federation of Women's Clubs and affiliated clubs to honor Mrs. Saidie Orr Dunbar, former executive secretary of the Oregon association, for her outstanding services in the field of nursing education.

James Miller Fellowship

The New York Tuberculosis and Health Association announces that the James Alexander Miller Fellowship will be available for the year starting July 1, 1958. Dr. Miller was a founder of the National Tuberculosis Association, a president of the NTA, and a winner of the Trudeau Medal. The fellowship provides $7,000 to assist a qualified investigator in medical and biological sciences who will devote full time to a research project in tuberculosis or some related problem. Applications should be submitted in duplicate by November 1 to the James Alexander Miller Fellowship Committee, New York Tuberculosis and Health Association, 386 Fourth Ave., New York 16, N. Y.

Grover Bellinger Fellowship

The first recipient of the Grover C. Bellinger Fellowship is Dr. Robert D. Michel, who will work on the clinical and research aspects of heart and lung diseases at the University of Oregon Medical School. The fellowship was established in March, 1957, by the Oregon Tuberculosis and Health Association following Dr. Bellinger's death last year. Dr. Bellinger had been superintendent of the state tuberculosis hospital in Oregon, a past president of the American Trudeau Society, and a director of the National Tuberculosis Association.

Vaccination with BCG

Although 100 Million People Have Been Vaccinated Against TB with BCG, Confusion Still Exists About Its Value. Here a Noted Authority Interprets the Facts on Hand

by Sidney Raffel M.D.

Dr. Raffel is professor and head of the Department of Medical Microbiology, Stanford University School of Medicine, Calif. He received a Sc.D. from the School of Hygiene, Johns Hopkins University, and an M.D. from Stanford University. He is a member of the Committee on Medical Research, American Trudeau Society. The experimental basis for his article has been sponsored by grants from the National Tuberculosis Association and the California Tuberculosis and Health Association, and at various times by several local California tuberculosis associations. His article is sponsored by the Committee on Medical and Public Relations of the American Trudeau Society.

The proposition of vaccination against tuberculosis has, over the past 35 years, taken on a rather bewildering number of facets, many of them having nothing to do with the essential biological problem. In the following paragraphs, I shall outline what is known about the biological facts.

At this time it seems quite clear on factual grounds that a rather good vaccine for this disease is available in the much used, abused, and discussed Bacillus Calmette - Guerin (BCG). This living but attenuated derivative of a bovine variant of the tubercle bacillus was first used in the human being in 1921. A recent estimate suggests that it has since then been given to 100 million people, by mouth, by injection, or through scarification. One would naturally suppose that the value of a biological product so extensively used should no longer be in question; the fact is, however, that for many years both the manner and the evaluation of its use were highly uncritical, and despite repeated observations of its efficacy in experimental animals, there was reason to doubt its ability to immunize the human being.

Selected controlled experiments in human population groups in various countries of Europe, in the United States, and most recently in England have shown that the use of the vaccine can reduce morbidity and mortality from tuberculosis, the former to as much as about 75 per cent. The recent figures from the British study show this to be the case during a period of four years following vaccination of adolescents, and Aronson's earlier studies in the United States suggest that this period may be extended to the surprising length of 15 years. This vaccine, then, has an overall efficacy in human beings which is perhaps somewhat better than that of the current poliomyelitis vaccine.

Other vaccines have been and are being discussed, including those composed of killed organisms, of other living attenuated bacilli such as the vole (field mouse) bacillus, and of various substances chemically extracted from the organism. Some of these potentialities are of great interest and importance, especially from the standpoints of avoidance of living bacteria and of bringing protection closer to the level of the absolute. However, at this time, the one practically useful vaccine is BCG.

Need for a Vaccine

Is a vaccine needed? The answer to this question is largely concerned with geography, and these remarks are intended for the United States. If we consider the question of need first upon epidemiologic grounds, it seems likely that the complete control of a chronic infectious disease cannot be accomplished through therapeutic measures. The reason is plain: therapy is instituted after a disease has already been acquired, and this means that some opportunity for further dissemination has occurred. In therapy, there is always involved some element of closing the barn door after the horse has been stolen. Effective prophylaxis, on the other hand, can interfere substantially with the natural epidemiologic pattern of an infectious disease, as is most classically shown by the control of smallpox. Not only the vaccinated, but the unvaccinated also, are protected to some degree because the chain of infection has been dislocated.

What is the need for vaccine from the individual standpoint? Reports to departments of public health in this country suggest that the incidence of active tuberculosis has fallen little in the past quarter century, in contrast to the rate of mortality. In 1930, the number of newly reported cases was 125,000, and in 1955 about 100,000. Despite the increase in total population during the intervening years, the latter estimate is an impressive one.

If one changes focus from the national view to those areas and groups where the exposure-risk and susceptibility are greatest, the argument for need is quickly validated. The potential recipients of vaccine exist in the larger cities among lower economic groups, and in hospitals, sanatoriums, and laboratories where tuberculosis is dealt with.

Safety of Vaccine

Accepting the existence of a satisfactory vaccine and the need for it in selected groups, the next item concerns its safety. The natural reluctance attending the use of any living vaccine was, in 1930, magnified in the case of BCG because of a "disaster" purportedly attending its use in Germany. Of 251 infants given vaccine orally, all developed tuberculosis and 77 died. Despite the fact that a thorough investigation established that these children had mistakenly been given virulent bacilli, it has taken many years for doubts to subside.

A degree of skepticism should attend the use of any living vaccine, but in

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this case safeguards are available in the form of pretrials in animals. This is particularly pertinent since it has been determined that freeze-dried BCG maintains its stability for many months and thus provides time between preparation and eventual human use for adequate testing.

Despite all safeguards, however, there have been rare instances of unavoidable misfortunes; thus, four instances of fatal disseminated infection have been reported during the past several years from the Scandinavian countries. These cases, however, apparently arose not because of reversion of the vaccine to virulence, since other individuals simultaneously vaccinated had no untoward effects, but rather because of an unknown defect in the vaccinated subjects which made them subject to invasion by an organism harmless for their fellow men. The catastrophe rate has been very low, and we must remember that there appears to be no agent, living or dead, to which occasional individuals will not respond in an unexpected way, sometimes fatally.

Disadvantages of the Vaccine

Of the number of potential disadvantages inherent in the use of vaccination against this disease, I shall deal with only two. One of these is of serious interest because it involves the loss of a diagnostic measure. This is the tuberculin test, which, in a lightly infected population as exemplified by most groups of children in this country, can assume real importance as a first warning of the presence of the bacillus in the tissues. The test loses its value progressively as the number of infections in a population rises, for if one knows in advance that a relatively large number of individuals tested will respond positively to tuberculin, it becomes more to the point to seek directly for evidences of active disease, such as by the chest film. (This statement has recently come into question on the basis of the new awareness of radiation injury.) Because vaccination is not seriously suggested by anyone for all children or adults, but precisely for those in areas where tuberculin positivity is at a relatively high level, this objection to the use of the vaccine loses a good deal of its validity.

A second possible disadvantage strikes more directly at the vitals of the question of use of the BCG vaccine. One well-known authority has repeatedly stressed the fact that the large majority of cases of active tuberculosis are not cases of primary infection but of the reinfection type. He considers the primary infection itself a benign process, dangerous only in that it lays the patient open to the potential ravages of reinfection disease. He believes that, far from being an *immunizing* process, the primary infection, by inducing allergy, makes tissues more vulnerable to the tubercle bacillus than they would normally be. Pursuing this chain of reasoning, he arrives at the conclusion that the deliberate induction of a "primary infection" with the BCG is an unwarranted procedure, since, as witnessed by events in nature, this encourages rather than discourages the occurrence of later clinically serious infection.

The 1958 NTA, ATS, and NCTW Annual Meetings will be held in Philadelphia, Pa., May 18-23. Full information about hotel reservations will appear in the November *Bulletin*.

A Rebuttal

The obvious rebuttal to this reasoning lies in the statistical evidence that vaccination of human beings with BCG results in resistance to infection, while there is no evidence that it acts insidiously to invite future disaster. In my opinion, the overriding fault in this authority's reasoning lies in the assumption that the danger of the primary infection resides in its allergizing effects (which BCG has in common with virulent bacilli) rather than in providing the *seed for future reinfection disease* (which only the virulent bacilli can do). One can hardly characterize vaccination with an attenuated bacillus as an event tantamount to the primary infection with a virulent organism. Indeed, the essence of this kind of vaccination is to substitute for the *virulent* primary infection a *harmless* "primary infection." Consequently, the use of the vaccine should provide the advantages of the spontaneous virulent primary infection so far as immunity is concerned, without the very great disadvantage of serving as the potential source of later endogenous reinfection.

This is stated with full appreciation of the so far insoluble nature of the problem of extent of occurrence of endogenous versus exogenous reinfection. There is simply no way to prove in what proportion of cases of reinfection tuberculosis the offending organism is a relic of an earlier inactive lesion, and in what proportion it is freshly acquired from the outside world. Our rationale must be deduced from observed facts, and these suggest that, unlike the primary infection, BCG provides an ability to ward off virulent bacteria from the outside world while not in itself constituting a future threat from within.

Chemoprophylaxis and Immunity

In the past several years, two separate ideas have been put forth embodying the use of antimicrobial drugs for protective purposes. Both have been loosely referred to as chemoprophylaxis, but in reality one is true chemoprophylaxis, consisting of the administration of drug prior to any evidence of infection, while the other is early chemotherapy, and proposes that drug be used on the basis of the development of a positive reaction to tuberculin. Space prohibits discussion of these interesting issues. It should be mentioned, however, that the chemoprophylactic device probably deprives the subject of the opportunity to develop acquired immunity to the bacilli while often failing, on the other hand, to rid the tissues of them. Early chemotherapy is rational as a retrospective measure when faced with the *fait accompli* of early infection, but it seems to me unjustifiable to enter into this scheme foresightedly as a deliberate approach to immunization by means of a virulent infecting bacillus under cover of an antimicrobial drug.

In my opinion there can be no doubt of the effectiveness of BCG vaccine, and of the fact that in certain situations its use should be urged as having more prophylactic potential than any presently available drugs.

Progress in Pennsylvania

Through the Continuing Efforts of the Pennsylvania Tuberculosis and Health Society, the Campaign to Improve Public Health Services Is Making Real Progress

by Ira E. Foutz

Mr. Foutz is consultant on public relations for the Pennsylvania Tuberculosis and Health Society, and has served the society in varying capacities since 1919. Prior to this, he worked for several upstate Pennsylvania newspapers, the *Philadelphia Public Ledger*, and the *Philadelphia Press*.

"Pennsylvania's Health Is Your Concern." Using this slogan, the Keystone State has made substantial progress in the past five years in starting county health departments and in decentralizing the program and the services of the state Department of Health.

In 1952, only one Pennsylvania county, Philadelphia, had a health department. Today, five counties—Butler, Bucks, Erie, Allegheny, and Philadelphia—have such departments. In three other counties — Lancaster, Montgomery, and York—surveys on local public health needs have been completed, and Lancaster will have a referendum this year to decide whether a health department should be established. In addition, surveys have been started in a half-dozen other counties.

The First Efforts

The proposal to set up county health departments in Pennsylvania did not originate in mid-century but in 1924, when the board of directors of the Pennsylvania Tuberculosis Society adopted a resolution strongly advocating their establishment. The society had been aware for some time of the weaknesses in the state's official public health organization and services. Control of local as well as state-wide services was centralized in the state health department. Partisan politics prevailed, and many of the staff lacked professional competence. The state was given a low rating in important aspects of both state and local public health services by the U.S. Public Health Service and the American Public Health Association. Citizens of the state had little knowledge of, or interest in, public health, chiefly because the state department made no effort to arouse it.

Dr. Charles H. Miner, who was then secretary of health, approved of the society's resolution and said that his department was preparing a bill to provide adequate county health machinery. However, most of the top officials in the department were strongly opposed to the idea, and in spite of an intensive health education program carried on by the Pennsylvania society, no action was taken.

In 1936, the Pennsylvania society proposed to the then governor, George H. Earle, that he "appoint a commission to study and evaluate the public health legislation, administration and services in the Commonwealth and make recommendations." The governor accepted this proposal in good spirit, but he did not act on it beyond writing the society that certain studies in the field of public health were in progress.

No important developments occurred until 1947, when the Pennsylvania medical society, at its annual meeting, recommended to the governor, James H. Duff, and the secretary of health, Dr. Norris W. Vaux, that a public health survey be made. Naturally, the Pennsylvania society enthusiastically welcomed this action. The American Public Health Association accepted an invitation to make the survey.

From start to finish, members of the Pennsylvania society staff were in close contact with Dr. Roscoe P. Kandle, director of the survey, and members of his team. Early in 1949, the report, which contained eight major recommendations, was completed and delivered to the state Department of Health and the governor.

With the eight major recommendations as the keystone of their efforts, a vigorous cooperative program of education was begun by the state medical society, the Pennsylvania Tuberculosis and Health Society, the League of Women Voters, and the Pennsylvania Citizens Association. Soon other civic, educational, and health and welfare agencies became part of the team and pledged their active support. Conferences, citizen meetings, newspaper publicity, exhibits, and printed materials were utilized.

"Pennsylvania's Health Is Your Concern," a 16-page digest of the survey report, was prepared and published as a cooperative project by a number of citizen and professional agencies under the leadership of the Pennsylvania Tuberculosis and Health Society. One hundred thousand copies were printed and distributed, and the Pennsylvania society devoted much effort to publicizing it. The survey recommendations were featured in programs of regional conferences; they were discussed and favorably acted upon in board and committee meetings; they were given a large place in the annual meeting program, with the secretary of health as a speaker. Much space was given to the report in the Pennsylvania society *Bulletin*, and considerable newspaper publicity was secured.

Shortly before the report was released, an event of great public health significance took place. This was the establishment, in 1948, of the Graduate School of Public Health at the University of Pittsburgh, which brought to Pennsylvania a number of outstanding specialists in public health and held great promise of providing competent personnel for health department positions. The school gave impetus to the early efforts on behalf of better public health in Pennsylvania.

Opposition Arises

After the survey report was released, it was found that the secretary of health, a retired obstetrician, without public health training or experience, was bitterly opposed to the survey

recommendations and had so expressed himself both privately and publicly. Other important officials of the Department of Health had similar attitudes. This meant looking toward the next governor, who would take office in January, 1951.

In 1949, the Pennsylvania society changed its name to include the word "Health." It also participated in a meeting in Harrisburg arranged by a committee of the state medical society for the purpose of organizing the Pennsylvania Health Council.

The New Law

The movement for improved health services crystallized in 1951 with the introduction in the General Assembly of a bill to permit establishment of local health units on a county or multi-county basis. A companion bill proposed to enlarge and strengthen the Advisory Health Board and to assign the board responsibilities for developing and placing in practice a personnel merit system.

The legislative measures were enacted and, with the governor's signature, became law on August 24, 1951.

Anticipating that a new governor would select a new secretary of health in January, 1951, the board of directors of the Pennsylvania society gave a statement to the platform committees of the Republican and Democratic parties urging them to include public health planks in their platforms. They made similar requests to the two candidates for governor. The results were very gratifying, and throughout the campaign the candidates supported improved public health services.

The new governor, John S. Fine, appointed as secretary of health Dr. Russell E. Teague, of the staff of the U.S. Public Health Service and assistant director of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis, in Philadelphia, and with years of competent service in public health work. This was the first time that a trained and experienced career man had been placed in charge of the Pennsylvania Department of Health since its establishment in 1905.

The Pennsylvania society continued its efforts to inform local affiliated organizations and the public about the new laws and tried to stimulate active interest in the need for establishing county departments of health.

The People Act

Soon, in one county after another, people began to ask questions about their public health problems and the facilities available to meet them. In several counties people began to take action: interested citizens asked voters to decide whether they wanted a county department of health.

In 1953, the Pennsylvania and county societies gave assistance in a successful referendum campaign in Bucks County, where the first health department fully established under the new law is functioning. In 1956, Allegheny County was the first to establish a department by resolution of the county commissioners. The Pittsburgh Department of Health was incorporated in this unit and began functioning on January 1, 1957. The county has a population of about one and a half million.

Dr. Teague was supported by the state medical society and the Pennsylvania society in planning a demonstration health department in 1953 in Butler County. In November, 1956, a very successful referendum vote—four to one—gave the pilot department the status of a full-fledged county department.

In November, 1955, a successful referendum vote was held in Erie County. The county department began functioning May 6, 1957. The Erie County Health and Tuberculosis Association deserves a large measure of credit for this notable victory.

In Lehigh County an unfortunate circumstance occurred. The ballot read: 1. Do you wish to vote for a six million dollar bond issue? 2. Do you wish a county health unit?

It was easy to say "no" to the first item and then "no" to the second, since it looked as if the second was the reason they wanted the first. One astonishing argument was that since Lehigh has had no epidemics in recent years, a health unit was not necessary. Even so, it was defeated by only 364 votes out of a total of more than 45,000.

Meanwhile, changes were taking place within the state Department of Health administrative organization. Bureaus and divisions were reorganized. Many local health services which previously had been administered from Harrisburg were decentralized. Professional training opportunities were developed for department employees.

In the field, the department's services are administered through seven regional offices, staffed with qualified medical directors and other personnel.

Another notable achievement has been the establishment of a personnel merit system.

When in November, 1954, a new governor, one half the members of the state Senate, and all the members of the House of Representatives were to be elected, the Pennsylvania society again urged the platform committees of the Republican and Democratic parties to include strong planks on public health, and similar communications were sent to both candidates for governor. The candidate elected, George M. Leader, made a very strong statement regarding high-grade public health service in an address in Erie before the election. Soon after taking office, he appointed as secretary of health Dr. Berwyn F. Mattison, a widely experienced career public health officer, who had been in charge of the Buffalo and Erie County (N.Y.) Department of Health for a number of years. This action was recognition of the continued need for professionally qualified nonpolitical leadership in public health services.

Dr. Mattison has continued to carry forward the program that was in progress when he took office and has added other constructive services. The Pennsylvania society has welcomed the opportunity to cooperate with him and elected him a member of its board of directors.

The state medical society has strongly supported the county health department plan. This help has been given partly through its Committee on Preventive Medicine and Public Health, with Dr. Pascal F. Lucchesi as chairman.

As the county health department program has progressed, the people of Pennsylvania have become much better acquainted with both the accomplishments and possibilities of decentralized public health services.

Editorial

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a proportion of the population as soon as possible, with priority given to (a) those individuals whose services are necessary to maintain the health of the community, (b) those individuals necessary to maintain other basic community services, and (c) persons with tuberculosis and others who in the opinion of the physician constitute a special medical risk.

2. Care of the patient and his family, including (a) medical and nursing care of the patient at home, (b) hospitalization of complicated or other special cases, and (c) household homemaking and feeding programs.

3. Preventing serious disruption of the essential community services: (a) public safety personnel (police, fire, etc.), (b) public utilities personnel (light and power, telephone, etc.), and (c) transportation workers.

By action of the Board of Directors, the NTA has been concerned with the control of other respiratory infectious diseases since 1950; this was expanded to include all respiratory diseases, both infectious and noninfectious, in 1956. So even though we purposely have not sought any dramatic publicity with regard to our interest in other respiratory diseases, our interests in this broad field are not new. The current emergency, however, provides us with a superb opportunity to cooperate with our colleagues in the official health agencies, in the medical profession, and in other health agencies to make a significant contribution to protecting the health and the welfare of our citizens.

All indications are that this will be a relatively mild affair so far as the individual patient is concerned, but one which may seriously disrupt community life because of the large proportion of the population in a given community that may be ill at the same time. If enough people can be immunized with the vaccine prior to the development of the epidemic phase, such disruption of community life may be avoided or greatly lessened, and unpleasant, if not highly dangerous, illnesses prevented.

50 Years of Service

MR. and Mrs. Lew Berry, of Hill City, Minnesota, receive congratulations from Governor Orville L. Freeman upon being named the state's Golden Age Couple by the Minnesota Tuberculosis and Health Association. To qualify for the award, which was tied in with the Minnesota association's fiftieth anniversary in 1956, the nominated couples not only had to have celebrated their golden wedding anniversary during that year but also have made a substantial contribution to health services in their communities. In their early days in a sparsely settled section of the state, Mr. and Mrs. Berry ministered to the sick, assisted at births, and helped bury the dead. Mr. Berry also served as a local Christmas Seal chairman for 15 years.

In a situation of this sort where it is difficult to predict the future, public health workers will be criticized if they don't do enough and also will be criticized if they do too much, as Surgeon General Leroy E. Burney of the PHS has stated upon several occasions. But he believes it is far better to run the risk of the latter. I agree, and I hope that the only criticism which will come to me with regard to activities of the NTA and the state and local tuberculosis associations in this emergency will be that perhaps they performed their functions too well, rather than that they let a golden opportunity of service pass them by.

APHA to Hold Annual Meeting

The 85th annual meeting of the American Public Health Association will be held in Cleveland, Ohio, November 11-15. More than 40 related organizations will hold simultaneous meetings, and a total attendance of 4,500 is expected. Each of the APHA's 14 specialized sections will hold meetings devoted to administrative and technical developments. Other sessions will deal with the quality of medical care, health services for industrial workers, medical care for the mentally ill, community health services for children, air pollution.

Are You Positive?

Mass media meeting held in New York City to open "Are You Positive?" campaign

"Are You Positive?" the National Tuberculosis Association's new film in animation and color, was previewed by national media representatives in New York City on August 1, at a meeting arranged by the NTA's Public Relations and Health Education Divisions.

The meeting marked the first step in providing a background of national publicity to aid 3,000 state and local tuberculosis associations in "Are You Positive?" campaigns designed to step up public information, correct misconceptions about tuberculosis, and improve local tuberculosis control programs.

Three things were stressed: common misconceptions about tuberculosis indicated by responses to a Gallup public opinion survey; current facts and problems related to tuberculosis control; and the use of the "Are You Positive?" film as a tool in meetings of community groups to be sponsored or promoted by tuberculosis associations.

The Gallup survey results were interpreted by Robert S. Arthur, vice president of Audience Research, Inc. (Gallup). The current tuberculosis situation was discussed by Dr. Walsh McDermott, editor of the AMERICAN REVIEW OF TUBERCULOSIS AND PULMONARY DISEASES; Dr. Edward T. Blomquist, chief, Tuberculosis Program, U.S. Public Health Service; and Dr. James E. Perkins, managing director of the NTA, and Dr. Floyd Feldmann, NTA's medical director.

Attending the preview showing were national magazine medical editors and science writers; editors and staff writers of medical journals, and of television, radio, and motion picture trade journals; and representatives of public service divisions of the major television and radio networks.

Stories about the campaign were subsequently carried by *Variety, Scope Weekly, Film News,* and *MD;* two television networks have expressed interest in use of the film; and magazine writers have been supplied with background facts for use in possible articles.

State and local tuberculosis associations are being urged to hold similar meetings as the first step in their "Are You Positive?" campaigns, to bring media people up-to-date about current tuberculosis control problems.

Fred Kilgust, formerly field counselor for the Ohio Tuberculosis and Health Association, has been appointed executive secretary of the Cumberland County (Maine) Tuberculosis and Health Association.

Dr. Julius Lane Wilson, director of medical education of the American Trudeau Society and director of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis, has been appointed chief consultant to the Veterans Administration tuberculosis service.

Dr. Russell H. Morgan, professor of radiology at Johns Hopkins University, has been appointed principal consultant to the U.S. Public Health Service on the development of radiological health protective measures.

New officers have been elected by Trudeau Sections in the following states:

Arkansas: President, **Dr. Harley C. Darnall;** president-elect, **Dr. Andrew Pringos;** secretary-treasurer, **Dr. Dorothy Cody.**

Indiana: President, **Dr. Joseph H. Geyer;** president-elect, **Dr. Eva R. McGilvrey;** secretary-treasurer, **Dr. Charles J. McIntyre.**

Iowa: President, **Dr. Daniel F. Crowley, Jr.;** president-elect, **Dr. George W. Smiley;** vice president, **Dr. Ralph E. Smiley;** secretary-treasurer, **Dr. Paul M. Seebohm.**

Kentucky: President, **Dr. Jack Chumley;** vice president, **Dr. Oren Beatty;** secretary-treasurer, **Dr. Boyce Jones.**

Kansas: President, **Dr. Clarence W. Erickson;** president-elect, **Dr. Roy A. Lawson, Jr.;** secretary-treasurer, **Dr. John K. Fulton.**

Missouri: President, **Dr. George H. Hobbs;** president-elect, **Dr. Mario Pianetto;** secretary-treasurer, **Dr. John W. Polk.**

New Mexico: President, **Dr. Junius Evans;** vice president, **Dr. Joseph Gordon;** secretary-treasurer, **Dr. Bergere Kenney.**

Ohio: President, **Dr. Harold G. Curtis;** vice president, **Dr. Virgil Plessinger;** secretary-treasurer, **Dr. Harold Humphrey.**

Miss Sarah L. Sproles, formerly executive secretary of the Staten Island Tuberculosis and Health Committee of the New York Tuberculosis and Health Association, has been appointed coordinator of program development and field service for the Florida Tuberculosis and Health Association.

Mrs. William Elliott, executive secretary of the Society for the Eradication of Tuberculosis in the Wiregrass (Ala.), has been appointed to also serve as director of public relations for the Alabama Tuberculosis Association.